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## METHOD AND APPARATUS FOR REDUCING NOISE AND VIBRATION IN SWITCHED RELUCTANCE MOTOR DRIVES

## 5 ABSTRACT OF THE DISCLOSURE

According to one embodiment of the invention, a method includes generating, by a computer, a phase current profile, generating a phase current according to the phase current profile, and applying the phase current to the switched reluctance motor drive. Generating the phase current profile includes initializing one or more first profile parameters which define at least a first portion of the phase current profile. Generating the phase current profile also includes determining whether a first performance criterion is satisfied based on operation of the switched reluctance motor drive using the first profile parameters. Generating the phase current profile also includes updating at least one the first profile parameters if the first performance criterion is not satisfied.